

## **3.11. UTILITIES AND SERVICE SYSTEMS**

### **3.11.1. INTRODUCTION**

This section describes the existing utilities and service systems available to the project, and the potential project demands placed on those facilities. Utilities and service systems include the provision of water, electricity, gas, and disposal of wastewater. (Storm drain infrastructure is discussed in Section 3.6 “Hydrology and Water Quality” of this EIR.) The data presented in this section was collected from the City of Lodi General Plan, The City of Lodi Urban Water Management Plan, the City of Lodi Wastewater Management Plan, and discussions with agency staff.

A Water Supply Assessment has also been prepared for the Reynolds Ranch Project and is included in Appendix H of this EIR. Appendix H also contains wastewater generation calculations.

### **3.11.2. ENVIRONMENTAL SETTING**

#### **Water**

The City of Lodi has adopted and maintains an *Urban Water Management Plan* to project future demands and to ensure that the supply of urban water is provided in a manner suitable to serve the demands of future growth. In 2004, the City delivered an average flow of 15.19 million gallons per day (MGD) and a maximum day flow of 27.8 MGD. Continuous planned upgrades to the water system are called for to ensure that desired levels of service are met. The current City standards require the construction of one well for each additional 2,000 persons added to Lodi’s population. With an estimated 63,000 persons residing in Lodi, the City is slightly behind the desired ratio of wells to population. Expansion of the water system is continuous, with new wells and facilities being added or upgraded as opportunities and funding allow. The 2005 *Urban Water Management Plan* provides for the necessary improvements to meet projected service demands through 2015 and beyond.

The City of Lodi currently generates its a water supply from 26 wells that are dispersed around Lodi. Currently, the wells deliver over 17,000 acre-feet annually through the City system and have the capacity of delivering a maximum day flow of 35,210 gallons per minute (gpm), which is significantly more than the 19,873 gpm maximum day flow that was needed in 2004. The pumping capacity drawing on groundwater does meet the peak flow needs and is far above the average day needs of the City. The local groundwater table exists 60 feet beneath ground. This groundwater basin is sufficient to meet the immediate needs of the community and this project. The ground water basin is of sufficient size to meet the near term water needs of the City and this project.

The groundwater basin below the City of Lodi has been identified as in overdraft condition. Additional water supplies are needed to serve the project area. To that end, the City has acquired 6,000 acre-feet per year surface water supply from the Mokelumne River currently owned by Woodbridge Irrigation District. The City is currently considering two means of utilizing this water, either to develop a water

treatment plant to deliver water to the City's distribution system or to recharge the groundwater to allow increase well water production. City evaluation of the two options is currently underway and a policy decision should be made within the next few months. For a more detailed examination of the water supply situation for the City, review the discussion under the impacts section and refer to the Water Supply Assessment included in Appendix H of this EIR.

The City of Lodi also recycles and reuses part of the wastewater treated at their White Slough Water Pollution Control Facility (WSWPCF). In recent years, the City has utilized the recycled water to produce steam for a 49-megawatt power generator, to replenish mosquito fish-rearing ponds, and to irrigate approximately 900 acres of City-owned farmland surrounding the WSWPCF that is leased to local farmers for the cultivation of feed and fodder crops not intended for human consumption. This use of recycled water offsets some of the regional demand for groundwater, allowing groundwater which would otherwise be withdrawn from the basin to be conserved.

The City is currently in the process of developing a Recycled Water Master Plan (RWMP), which will identify future uses of recycled water. The City's Urban Water Management Plan anticipates potential uses of recycled water within the City to include:

- Agricultural irrigation;
- Urban (park and streetscape) landscape irrigation;
- Residential irrigation;
- School landscape irrigation; and,
- Dual-plumbed business/commercial developments.

To distribute water, the City's maintains a series of storage facilities, pumping stations, and pipelines. The City's water storage facilities include a one million-gallon ground storage tank on Thurman Street and a 100,000-gallon elevated tank on North Main Street. Water is distributed throughout the City with approximately 210 miles of pipelines. The City's mainline pipes range in diameter from 14 inches to 2 inches. The City is in the process of replacing the existing 2- and 3-inch pipes.

To deliver water to the project site, the proposed Infrastructure Master Plan includes a water pipeline system. The proposed water pipeline system includes two (2) 12-inch water lines running north to south from Harney Lane on the western portion of the project site, and moving west to east toward Highway 99. The 10-inch water lines would extend from the western 12-inch line and extend into the central and western portions of the project site. The 10-inch extension lines will also extend north to connect with the existing City water system and Well #23. The 10-inch lines will be implemented as future build-out of the site occurs, and will most likely take place in Phase 2 of the proposed project. See Figure 3.11.1.

The City of Lodi's water supply capabilities will be expanded by the addition of two water wells. The first well will be needed as part of the first phase and has been tentatively located near the Highway 99. The location provides for improved dispersion of well sites and provides a nearby water source for fire protection. A second well, need as part of phase 2, has been tentatively sited near the storm water detention facility.

Although this location would serve the project and the City well, there remains the potential that a different, nearby site could also meet the needs of the project. The placement and timing of this second well would need to be coordinated with the development of the second phase of the project.

### **Wastewater**

The City owns and operates the wastewater collection system within its corporate limits. The City also owns the treatment facilities at the White Slough Water Pollution Control Facility (WSWPCF) located approximately 6 miles southwest of the City. The City has adopted and maintains a *Wastewater Master Plan* to estimate future infrastructure and service demands within Lodi. Upgrades and improvements to the infrastructure and plant can provide sewer service to the Project area.

### **Wastewater Collection System**

Wastewater services are proposed to be provided by the City of Lodi for this project area. It is estimated that the project will generate 0.64 cubic feet per second (cfs) average daily flow and 2.4 cfs peak wet weather flow. The City of Lodi's current collection system does not serve areas south of Harney Lane into the project area at this time. The project area was included within the City's 1990 Draft Wastewater General Plan Document. This document did not include significant discussion on the potential for service to this area.

The existing system and master plan information was reviewed. The proposed collection system has been developed in conformance with many of the concepts outlined within the 1990 master plan (see Figure 3.11.2). From this information, service limits and shed boundaries were established for the south Lodi area (see Figure 3.11.3). Shed limits were established that extend from the western proposed limits of development across to approximately half a mile east of Highway 99. Portions of this shed area are served by an existing pump station at the corner of Mills Avenue and Harney Lane.

Full permanent service to the project and the south Lodi area is dependent on the development of a trunk system through the project site to an existing pump station located at the corner of Mills Avenue and Harney Lane. Two alternative trunk line locations were considered and are shown Figure 3.11.3. The most likely means to provide service to the area is to construct a trunk line located half a mile south of and parallel to Harney Lane. Although no significant environmental impacts were identified with this alternative route, right-of-way is not yet available and would need to be acquired. The line would extend from the existing pump station to the project site, then through the project site to Highway 99 to provide for potential future development to the east. It is estimated that this pipeline would be 24 to 30 inches in diameter.

A second alternative alignment was also considered and is equally acceptable from an engineering and environmental basis. It would require the major sewer line be constructed along Harney Lane east from the lift station to the project. Both alignments are shown on the large area map (Figure 3.11.3).

The existing pump station at Mills Avenue and Harney Lane is not currently considered a regional facility and was sized to only serve development north of Harney Lane and included provisions to permit service to additional development in the immediate area south of Harney Lane. It did not include capacity to serve the project area. Although the existing pump station currently has unutilized capacity, upgrades will be required to provide capacity for the project site and the larger service additional area. These incremental upgrades will occur over the course of several years as growth occurs and can be put in service as needed.

As an additional concern, the existing pipelines out of the pump station are also too small to serve the service area, and new force mains out of the pump station will need to be constructed out of the pump station west down Harney Lane to the main 48-inch outfall near Davis Road that extends to the treatment plant. A phasing and financing plan will need to be developed to ensure that current needs continue to be met and that the station, including the new outfall pipelines, are constructed and expanded in a consistent and orderly manner to provide the needed expanded service.

### **Treatment and Disposal Systems**

The City of Lodi provides wastewater collection and treatment to all residents within the City Limits. The collection system includes separate domestic and industrial sewers and related pumping facilities. Untreated wastewater is piped to the City's treatment plant through pipes, utilizing both gravity flow and lift stations, where appropriate. The City's domestic sewage treatment plant, known as the White Slough Water Pollution Control Facility, has the capacity to treat 8.5 million gallons per day (mgd) at completion of the current expansion project.

FIGURE 3.11.1: PROPOSED WATER PLAN FOR REYNOLDS RANCH

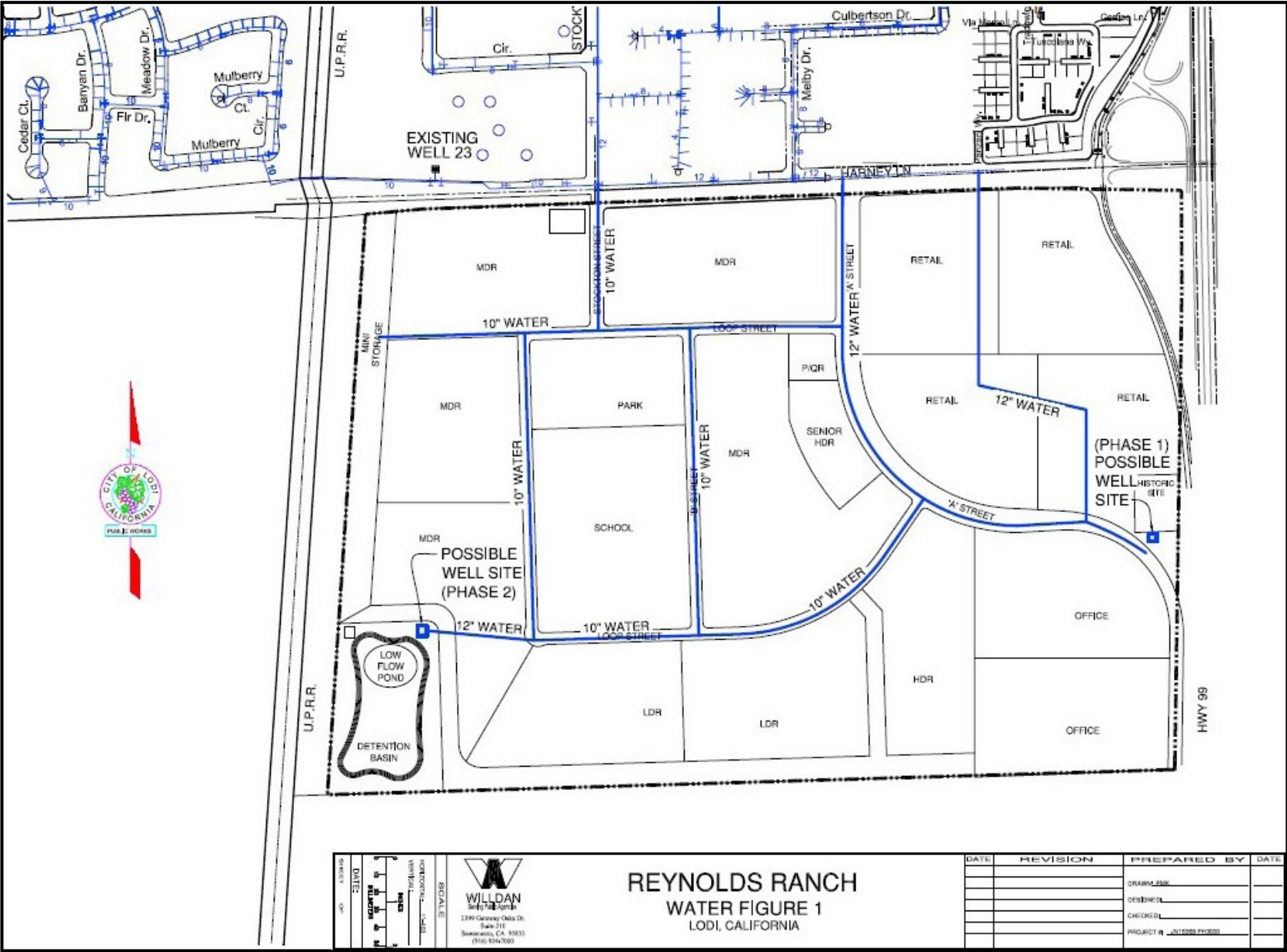


FIGURE 3.11.2: PROPOSED SEWER PLAN FOR REYNOLDS RANCH

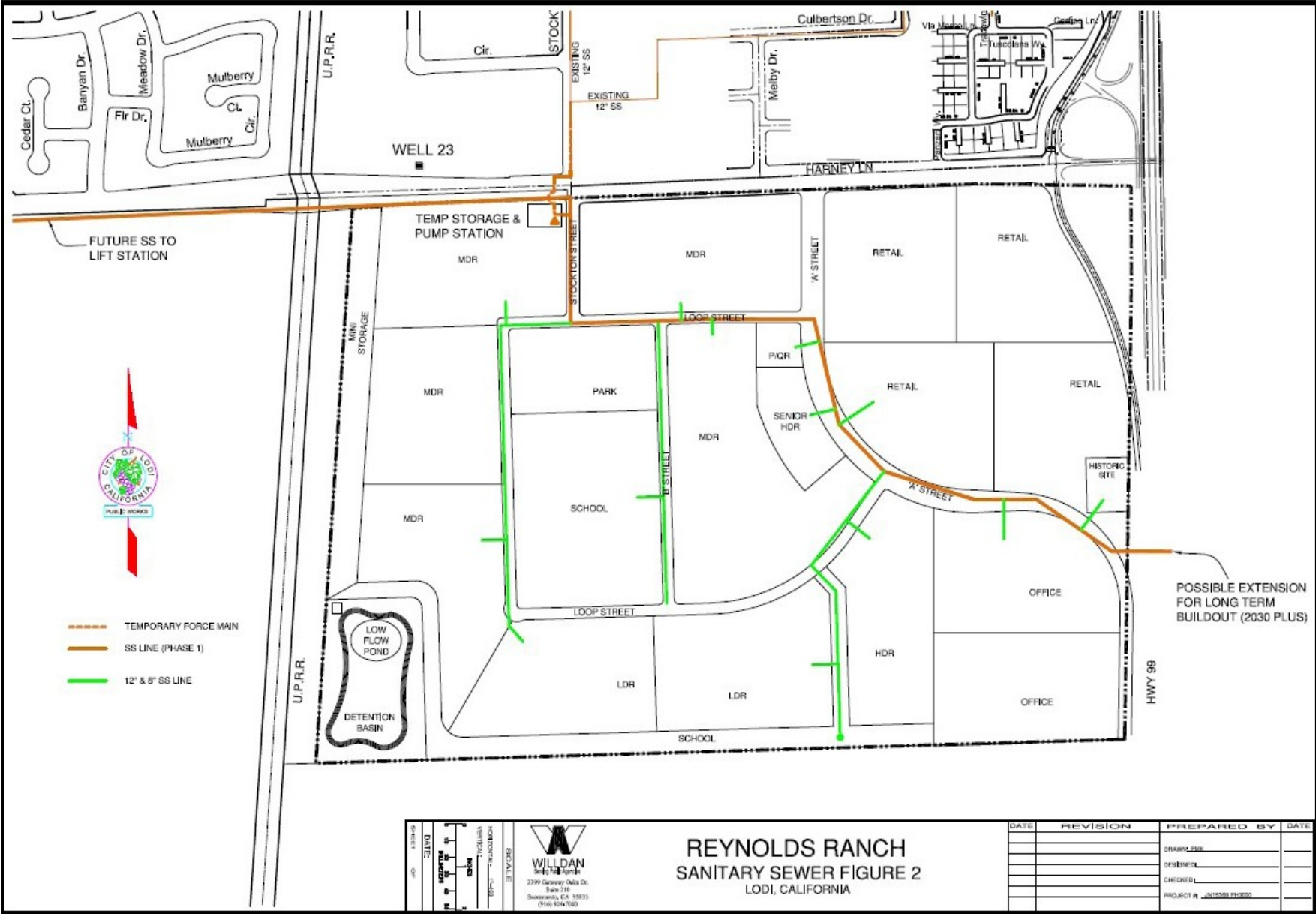
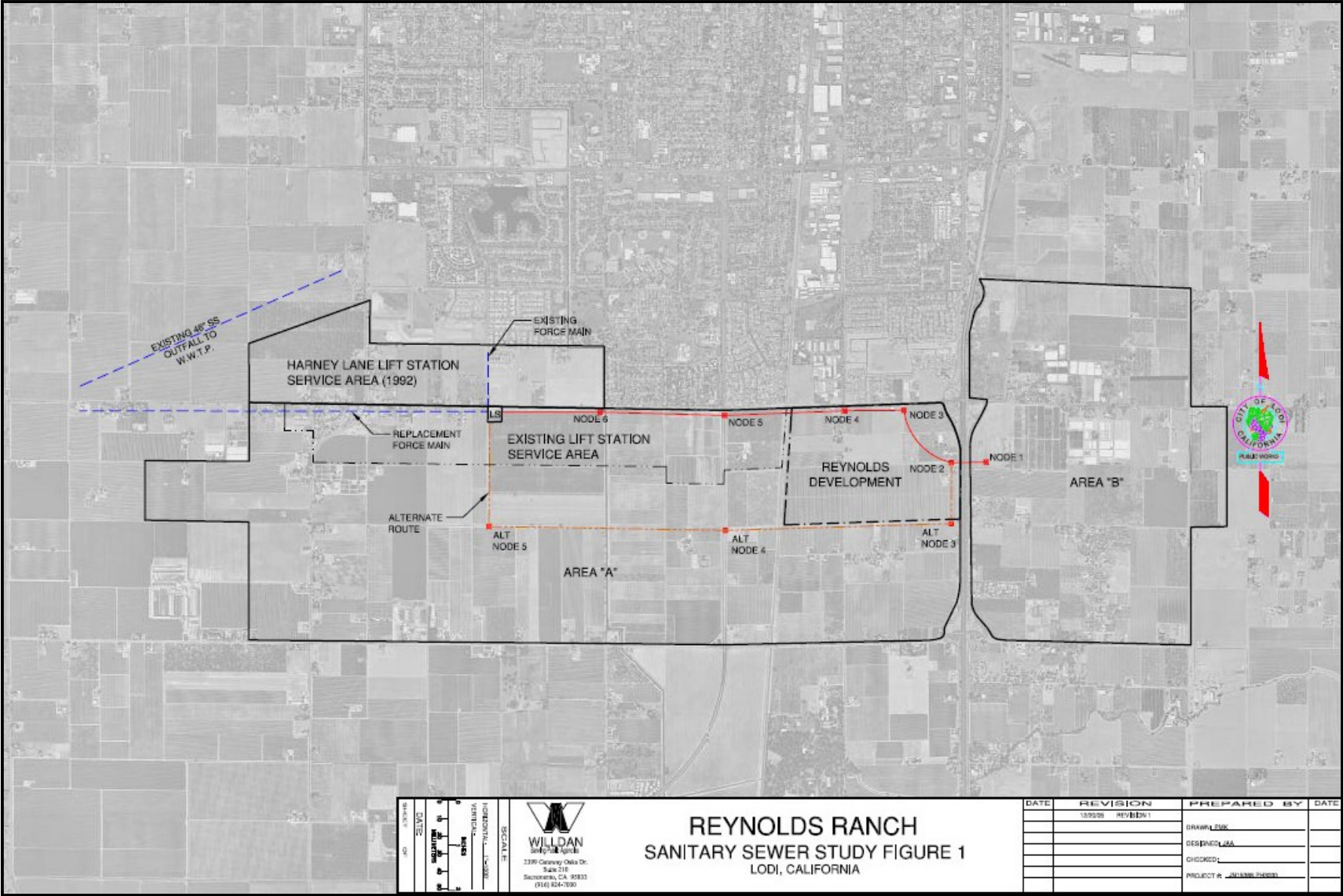


FIGURE 3.11.3: EXPANDED SEWER SERVICE AREA FOR THE PROJECT VICINITY



### **Solid Waste**

Landfill capacity would be provided by the North County Sanitary Landfill located on Harney Lane approximately 1.5 miles east of the Harney Lane Sanitary Landfill, located near the intersection of Harney Lane and Jacktone Road. North County Recycling Center and Sanitary Landfill is owned and operated by San Joaquin County, and opened for business on November 1, 1991. The closure date for this facility is expected in 2035. The site encompasses 320 acres, and receives an average of 496 tons of waste daily with a permitted quantity of 825 tons.

### **Energy Sources**

The Lodi Electric Utility provides the majority of the electrical services to the City of Lodi and including the project site. The Lodi Electric Utility is a customer-owned and city-operated utility that provides electrical services for residential, commercial and industrial customers in Lodi.

For 30 years, the Lodi Electric Utility has been a member of the Northern California Power Agency (NCPA), which is a collective comprised of utilities that own and operate their own power plants. The NCPA is a California Joint Action Agency, with membership open to municipalities, rural electric cooperatives, irrigation districts and other publicly owned entities interested in the purchase, aggregation, scheduling and management of electrical energy. The NCPA allows the Lodi Electric Utility to purchase and supply electricity at cost.

The NCPA owns and operates a variety of electric generation facilities, which include the following.

- Five quick-response Combustion Turbine units (G.E. frame 5) located in the cities of Alameda, Roseville, and Lodi.
- Combustion Turbine Project No. 2, a 49 MW steam-injected gas turbine (STIG) plant, is located near Lodi.
- The North Fork Stanislaus River Hydroelectric Development Project is a hydroelectric project on the North Fork of the Stanislaus River. The Project, which generates 250 megawatts of power, includes the New Spicer Meadow Dam and Reservoir, two diversion dams and tunnels, the McKay's Point Reservoir with a power tunnel to the main powerhouse, one of two powerhouses, and two transmission lines.
- Two geothermal power plants and the associated steam field. The two NCPA power plants have two generators each and the project produces 147 megawatts. Dry, superheated steam is delivered to the power plants from 65 to 70 production wells via approximately eight miles of pipeline.

Electrical service in the unincorporated area is provided by PG&E. As parcels are annexed to the City of Lodi, electrical service would connect to Lodi Electric Utility system. Power supply to the project site may be derived from either Henning Substation

(Feeder No. 1248) or Industrial Substation (Feeder No. 1272). Existing primary distribution lines would be extended across Harney Lane in possibly four places - Eastside of Union Pacific Railroad track, Stockton Street, Melby Drive and Panzani Way. Cost of these line extensions and service connections would be the responsibility of the developer.

### **Natural Gas**

Natural gas service for the City is provided by Pacific Gas and Electric Company (PG&E) and is piped from gas fields in Tracy and Rio Vista. The project site would be serviced by an 8 inch high pressure pipeline runs north/south adjacent to the west of the 99 Freeway, as well as an 8 inch high pressure pipeline running east/west on the south side of Harney Lane between the 99 Freeway and Stockton Street.

### **3.11.3. THRESHOLDS OF SIGNIFICANCE**

The California Environmental Quality Act (CEQA) Guidelines, Appendix G indicate the project may be deemed to have a significant impact to utilities and service systems if it would:

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Not comply with federal, state, and local statutes and regulations related to solid waste;
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Not have sufficient water supplies available to service the project from existing entitlements and resources, requiring new or expanded entitlements;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments; or
- Require or result in the construction on new water or wastewater treatment facilities, the construction of which could cause significant environmental effects.

### **3.11.4. PROJECT IMPACTS**

#### **No Impacts**

##### **Landfill Capacity**

As identified earlier in this section, waste disposal would be taken to the North County Recycling Center and Sanitary Landfill. The North County Recycling Center and

Sanitary Landfill is owned and operated by San Joaquin County, and two local companies, Central Valley Waste and California Waste, are available to provide trash collection, disposal, and curbside recycling services to the project site. The North County Recycling Center and Sanitary Landfill has sufficient permitted capacity to accommodate the project's solid waste disposal needs, and is projected to be open for trash disposal until 2035. Therefore, the project would have no associated impacts.

### **Solid Waste Statutes and Regulations**

The proposed project would comply with federal, state, and local statutes and regulations related to solid waste. The construction and operation of the proposed residential, commercial, recreational, and educational uses would generate typical solid waste, and would not generate uniquely hazardous waste, industrial byproducts, or demolition materials. Therefore, the proposed project would have no impact related to infractions with solid waste statutes or regulations.

### **Less than Significant Impacts**

**Impact 3.11.1: Increase in the Demand for Energy – Less than Significant Impact:** The proposed project would increase energy demand; however, the Lodi Electric Utility has sufficient capacity available to accommodate the increased demand, provided the applicant pays the fair cost of expanding the electrical infrastructure to meet the need of the City's electrical system.

As discussed, the proposed Development Plan and Concept Plan include up to 1,084 residential units, 550,000 ft<sup>2</sup> of commercial and office space, an elementary school, a fire station, as well as additional open space and run-off detention basin. This proposed build-out would lead to an increased need for energy. However, the proposed growth is consistent with regional growth forecasts, as well as the City's General Plan and, thus, consistent with projected future energy demands. Further, required energy services would be provided by the Lodi Electric Utility, who have verified that sufficient capacity is available to support the proposed project. Therefore, the proposed project would not significantly impact energy sources or supply. The applicant is required to pay the fair cost of expanding the electrical infrastructure to meet the need of the City's electrical system, as well as any required exit fees charged by Pacific Gas and Electric (PG&E).

**Impact 3.11.2: Increase in the Demand for Natural Gas – Less than Significant Impact:** The proposed project would increase the demand for natural gas; however, PG&E has sufficient capacity available to accommodate the increased demand.

As discussed, the proposed Development Plan and Concept Plan include up to 1,084 residential units, 550,000 ft<sup>2</sup> of commercial and office space, an elementary school, a fire station, as well as additional open space and run-off detention basin. This proposed build-out would lead to an increased need for natural gas. However, the proposed growth is consistent with regional growth forecasts, as well as the City's General Plan and, thus, consistent with projected future natural gas demands. Further, PG&E has indicated that no problems exist in providing existing City natural gas service (Michaeloff

pers. Comm.). Therefore, the proposed project would not significantly impact natural gas service or supply.

**Impact 3.11.3: Wastewater Treatment Requirements – Less than Significant**

**Impact:** The proposed project would generate wastewater; however, the wastewater generated by the project would not exceed the wastewater treatment capacity of the existing treatment facilities.

As discussed, the proposed Development Plan and Concept Plan include up to 1,084 residential units, 550,000 ft<sup>2</sup> of commercial and office space, an elementary school, a fire station, as well as additional open space and run-off detention basin. All of the proposed uses would generate typical wastewater characteristics and special handling or pretreatment systems are not expected to be required. For the total project, average dry weather flow is expected to be 0.64 cfs and the peak wet weather flow is expected to be 2.4 cfs. Wastewater treatment facilities are designed to treat domestic sewage; and the expected domestic sewage does not exceed existing wastewater treatment capabilities. Therefore, the proposed project would not exceed wastewater treatment requirements, and the project would have no related significant impacts.

**Impact 3.11.4: Increase in the Demand for Water Service – Less than Significant**

**Impact After Mitigation:** The proposed project would increase water demand. The increased demand could be accommodated by a water supply system that includes two new groundwater wells.

The City of Lodi currently generates its water supply from 26 wells that pump groundwater and are distributed throughout the City. Each well has the capacity of delivering 800 to 2000 gpm, with an average of 1350 gpm. The wells draw on a groundwater basin below the City. This groundwater basin is in overdraft condition and additional water supply is needed. The City has acquired surface water from the Mokelumne River currently owned by Woodbridge Irrigation District, and plans will be developed to provide additional near and long-term water supply from this source.

The Reynolds Ranch project is anticipated to require about 510 acre-feet (AF) of water (see Appendix H) or a peak hour flow of 1412 gpm. Based on the average performance of existing wells, the project will require two additional wells within the project site to provide peak flow capacity and provide fire protection. One proposed well site is located immediately south of the 1-acre historical site parcel and is required in the Phase 1. The actual location of the second well would be dependent in part on the details of the second phase of the development plan but for purposes of this analysis, the second well has been assumed to be located in the southwest corner of the development near the detention pond. Such a location provides for the dispersion of well sites, which increase their efficiency both above and below ground (see Figure 3.11.1). Given the information available at this time, this location is likely to be excellent. An alternative location west of the UPRR might prove to be more appropriate if that property were to develop and it were determined that such a location would improve overall system efficiency.

As outlined in the 2006 Urban Water Management Plan, the City draws ground water in excess of 17,000 AF, which has been determined to exceed the historical safe draw

volume of 15,000 AF. To address this problem, the 2006 urban water management plan identifies the following five strategies that are being implemented to resolve this short coming:

1. Establishment of a Water Conservation Program—The City has already established a Water Conservation Ordinance and a Water Conservation Rebate program that has shown reductions in demand. Continued implementations of these programs will reduce the current overdraft condition and will eventually develop surplus capacity that could be used to meet the needs of the project.
2. Establishment of a Recycle Water System—The City has developed a water reuse program and is treating water for reuse at the Wastewater treatment plant. Currently, this water is being distributed to area farmers, thereby reducing their groundwater and surface water demands and improving the overall regional water balance. Expansion of this program is being planned and the incorporation of recycled water for landscape areas and other acceptable uses will further reduce demand on the groundwater basin.
3. Development of Groundwater Recharge systems—The City is looking into groundwater recharge systems. Such systems are not currently considered for the Reynolds Ranch project, although other developments around the City are including such systems to provide additional groundwater recharging, improving the city's water balance.
4. Development of Surface Water Treatment—The City has acquired an additional 6,000 AF of water rights from the Woodbridge Irrigation District. The City is considering developing a water treatment plant to provide additional supply for the City consumers. This surface water could also be used as groundwater recharge supply as an alternative as outlined above.
5. Development of Additional Water Wells—Wells provide an efficient means of providing for peak day and peak hour water demands by providing a distributed water source system. Adding additional wells do not necessarily increase ground water useage, especially if those wells are used primarily to meet peak day, peak hour or emergency water demands.

The City has accepted 15,000 AF as the demand that the groundwater basin can accept without experiencing significant draw down. Even though the current City needs exceeds this amount, the basin has not yet demonstrated significant degradation and is still able to meet the City's needs in the short term. Given that two of the City's programs to reduce demand (conservation and recycled water use) are already on line and are showing signs of success and that the other programs are being developed and expanded to reduce groundwater demands, it is reasonable to determine that the ground water supply capabilities of the basin will meet the needs of the City and of the project in the short term. Through metering, the City's Water Conservation Program alone could save 3,800 AF of water annually by the year 2030 (City of Lodi Urban Water Management Plan, 2006).

The proposed water distribution system includes two (2) 12-inch water lines running north to south from Harney Lane on the western portion of the project site, and moving west to east toward Highway 99. The 10-inch water lines would extend from the western 12-inch line and extend into the central and western portions of the project site. The 10-inch extension lines will also extend north to connect with the existing City water system and Well #23. The 10-inch lines will be implemented as future build-out of the site occurs, and will most likely take place in Phase 2 of the proposed project.

The proposed water supply system is designed to adequately serve build-out conditions of the project area. However, since the proposed water supply system has not yet been designed to a construction-drawing detail, Mitigation Measures 3.11.1 – 3.11.6 are needed to ensure the final water supply plans are designed to serve the project's water demand. The proposed preliminary design of the water supply system, however, clearly demonstrates that acceptable water supply and delivery for the proposed project would be attainable. With incorporation of Mitigation 3.11.1 – 3.11.6 the increase in water demand generated by the proposed project would not be a significant impact.

**Impact 3.11.5: Increase in the Demand for Wastewater Service– Less than Significant Impact After Mitigation:** The proposed project would increase the demand for wastewater service. The increased demand could be accommodated by an onsite sewer system and improvements to wastewater infrastructure in the project vicinity.

#### Proposed Wastewater Collection System

As discussed above in Section 3.11.2, wastewater services will be provided by the City of Lodi for the project area. The project will increase demands on the existing wastewater collection service; however, the project includes plans to expand the existing system to serve the Project Area. The project is expected to generate an average dry weather flow of 0.64 cubic feet per second or 0.4 million gallons a day based on the improvement standards of the City of Lodi. A detailed break down of the flows and the land uses that generate them has been presented in Appendix H. These flows can be collected by a conventional system constructed to the improvement design standards of the City of Lodi. Expansion of the system is possible through limited temporary connections into the collection systems in Stockton Street or Melby Drive, but additional engineering analysis is required to confirm the temporary facilities design.

The proposed wastewater collection system will be designed to adequately serve the Project Area. The design of the system shall include provisions for incorporation into a regional sewer system and financial participation in the construction of that system. Mitigation Measures 3.11.7 – 3.11.10 have been developed to ensure the final wastewater collection plans are designed to accommodate the project's wastewater needs. The proposed preliminary design of the wastewater collection system, however, clearly demonstrates that acceptable wastewater collection for the proposed project would be attainable. With incorporation of Mitigation 3.11.7 – 3.11.10 the increase in the demand for wastewater service generated by the proposed project would not be a significant impact.

### Wastewater Treatment

The City of Lodi provides wastewater collection and treatment to all residents within the City limits. The collection system includes separate domestic, industrial, and storm sewers and related pumping facilities. The City's sewage treatment plant, known as the White Slough Water Pollution Control Facility, has the capacity to handle 8.5 million gallons per day (mgd). The project's projected 0.4 mgd additional flow is not expected to be significant and is within the capacity constraints of the current facility.

### **3.11.5. CUMULATIVE IMPACTS**

The proposed project would increase the demand for water, wastewater, energy, and natural gas services. The impact analysis in Section 3.11.4 considers the project's incremental increase in service demand in conjunction with the demand generated by existing development and planned and projected growth. As such, the project's contribution to cumulative impacts on utility and service systems are analyzed above in Section 3.11.4. With the incorporation of the mitigation measures identified in Section 3.11.6, the proposed project would not cause the cumulative impacts on utility and service systems to be significant.

### **3.11.6. MITIGATION MEASURES**

**Mitigation Measure 3.11.1:** To the satisfaction of the City of Lodi Public Works Department, a new well shall be added in the project to support water needs for the project area and shall be included in the first phase of development. The triangular area by the Morse-Skinner Ranch House is a recommended area, although other sites may prove acceptable. A higher fire flow can be maintained by placing the well in the east portion of the project where office and retail fire flows will be higher.

**Mitigation Measure 3.11.2:** To the satisfaction of the City of Lodi Public Works Department, a second well shall be constructed as part of the second phase of development as demands indicate the need. Alternatively, since the project only necessitates a portion of a second well, the well could be constructed offsite and the development pay its fair share of the second well.

**Mitigation Measure 3.11.3:** Prior to improvement plan approval, a looped water pipeline plan will be developed for the project that will provide for fire flows within the project, connections to the existing City system and a phasing plan for pipe installation. This plan shall be reviewed and approved by the City Engineer.

**Mitigation Measure 3.11.4:** To the satisfaction of the City of Lodi Public Works Department, the development shall be assessed its fair share of the cost of developing additional water sources, including but not limited to participation in acquiring additional water rights, development and construction of surface water treatment or recharge the groundwater system, construction of water transmission facilities, and other related water infrastructure.

**Mitigation Measure 3.11.5:** To the satisfaction of the City of Lodi Public Works Department, as part of the design process, a detailed water master plan shall be developed to identify facilities, phasing and other facilities needed to insure that the water system for the project meets the requirements of the City water system.

**Mitigation Measure 3.11.6:** To the satisfaction of the City of Lodi Public Works Department, the project proponents shall participate in a financing mechanism to fund the required water infrastructure to serve the demands of the project. Funding of water infrastructure in accordance with Conditions of Approval for the project shall satisfy this mitigation measure.

**Mitigation Measure 3.11.7:** To the satisfaction of the City of Lodi Public Works Department, a detailed engineering analysis for the development of a collection system that will serve the project area shall be prepared. Said analysis shall include sizing of the pipe network, sizing of the pump station modifications, and establishing timing for the pump station modifications.

**Mitigation Measure 3.11.8:** To reflect the investment that has been made by existing development and other potential developers, a financing mechanism shall be developed and implemented to the satisfaction of the City of Lodi to fund the modification of the pump station and the station outfall force mains. Funding of the pump station in accordance with Conditions of Approval for the project shall satisfy this mitigation measure.

**Mitigation Measure 3.11.9:** To the satisfaction of the City of Lodi Public Works Department, and as part of the design process, a detailed sewer master plan shall be developed to identify facilities, phasing and other facilities needed to insure that the wastewater system meets the requirements of the City sewer system.

**Mitigation Measure 3.11.10:** To the satisfaction of the City of Lodi Public Works Department, the project proponents shall participate in a financing mechanism to fund the required sewer infrastructure to serve the demands of the project. Funding of sewer infrastructure in accordance with Conditions of Approval for the project shall satisfy this mitigation measure.

### **3.11.7. LEVEL OF SIGNIFICANCE AFTER MITIGATION**

The project would have a less than significant impact to utilities and services after mitigation. The following table is a summary of the thresholds of significance, potential impacts and proposed mitigation measures to address the impacts:

**TABLE 3.11.1: SUMMARY OF UTILITY AND SERVICE SYSTEMS THRESHOLDS OF SIGNIFICANCE, IMPACTS, AND MITIGATION MEASURES**

Threshold of Significance	Recommended Mitigation Measure	Level of Significance
Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	None required.	No Impact
Would the project not comply with federal, state, and local statutes and regulations related to solid waste?	None required.	No Impact
Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	None required. Potential project impacts would be lessened through the project's Infrastructure Master Plan. See the discussion of Impact 3.11.3 on pages 3.11-11.	Less than Significant Impact
Would the project not have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<p><b>Mitigation Measure 3.11.1:</b> To the satisfaction of the City of Lodi Public Works Department, a new well shall be added in the project to support water needs for the project area and shall be included in the first phase of development. The triangular area by the Morse-Skinner Ranch House is a recommended area, although other sites may prove acceptable. A higher fire flow can be maintained by placing the well in the east portion of the project where office and retail fire flows will be higher.</p> <p><b>Mitigation Measure 3.11.2:</b> To the satisfaction of the City of Lodi Public Works Department, a second well shall be constructed as part of the second phase of development as demands indicate the need. Alternatively, since the project only necessitates a portion of a second well, the well could be constructed offsite and the development pay its fair share of the second well.</p> <p><b>Mitigation Measure 3.11.3:</b> Prior to improvement plan approval, a looped water pipeline plan will be developed for the project that will provide for fire flows within the project, connections to the existing City system and a phasing plan for pipe installation. This plan shall be reviewed and approved by the City Engineer.</p> <p><b>Mitigation Measure 3.11.4:</b> To the satisfaction of the City of Lodi Public Works Department, the development shall be assessed its fair share of the cost of developing additional water sources, including but not limited to participation in acquiring additional water rights, development and construction of surface water treatment or recharge the groundwater system, construction of water transmission facilities, and other related water infrastructure.</p> <p><b>Mitigation Measure 3.11.5:</b> To the satisfaction of the City of Lodi Public Works Department, as part of the design</p>	Less than Significant Impact After Mitigation

**TABLE 3.11.1: SUMMARY OF UTILITY AND SERVICE SYSTEMS THRESHOLDS OF SIGNIFICANCE, IMPACTS, AND MITIGATION MEASURES**

Threshold of Significance	Recommended Mitigation Measure	Level of Significance
	<p>process, a detailed water master plan shall be developed to identify facilities, phasing and other facilities needed to insure that the water system for the project meets the requirements of the City water system.</p> <p><b>Mitigation Measure 3.11.6:</b> To the satisfaction of the City of Lodi Public Works Department, the project proponents shall participate in a financing mechanism to fund the required water infrastructure to serve the demands of the project. Funding of water infrastructure in accordance with Conditions of Approval for the project shall satisfy this mitigation measure.</p> <p>Potential project impacts would be lessened through the project's Infrastructure Master Plan. See the discussion of Impact 3.11.4 on pages 3.11-11 through 3.11-13.</p>	
Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<p><b>Mitigation Measure 3.11.7:</b> To the satisfaction of the City of Lodi Public Works Department, a detailed engineering analysis for the development of a collection system that will serve the project area shall be prepared. Said analysis shall include sizing of the pipe network, sizing of the pump station modifications, and establishing timing for the pump station modifications.</p> <p><b>Mitigation Measure 3.11.8:</b> To reflect the investment that has been made by existing development and other potential developers, a financing mechanism shall be developed and implemented to the satisfaction of the City of Lodi to fund the modification of the pump station and the station outfall force mains. Funding of the pump station in accordance with Conditions of Approval for the project shall satisfy this mitigation measure.</p> <p><b>Mitigation Measure 3.11.9:</b> To the satisfaction of the City of Lodi Public Works Department, and as part of the design process, a detailed sewer master plan shall be developed to identify facilities, phasing and other facilities needed to insure that the wastewater system meets the requirements of the City sewer system.</p> <p><b>Mitigation Measure 3.11.10:</b> To the satisfaction of the City of Lodi Public Works Department, the project proponents shall participate in a financing mechanism to fund the required sewer infrastructure to serve the demands of the project. Funding of sewer infrastructure in accordance with Conditions of Approval for the project shall satisfy this mitigation measure.</p> <p>Potential project impacts would be lessened through the project's Infrastructure Master Plan. See the discussion of</p>	

**TABLE 3.11.1: SUMMARY OF UTILITY AND SERVICE SYSTEMS THRESHOLDS OF SIGNIFICANCE, IMPACTS, AND MITIGATION MEASURES**

Threshold of Significance	Recommended Mitigation Measure	Level of Significance
	Impact 3.11.5 on pages 3.11-13 through 3.11-14.	
Would the project require or result in the construction on new water or wastewater treatment facilities, the construction of which could cause significant environmental effects?	None required.	Less than Significant Impact